weakness of the lower extremities, and a day later presented complete paraplegia, with anæsthesia, absence of the knee-jerk, paralysis of the rectum and bladder, and development of a bed-ulcer. Infection of the genito-urinary tract with the bacterium coli commune ensued, and death took place seventeen days after the onset of the complicating conditions. Upon post-mortem examination active congestion and slight hemorrhagic exudation were found without the dura mater, in the lower half of the dorsal region, extending to the level of the middle of the lumbar swelling. The vessels of the pia were dilated, and the posterior aspect of the cord presented sanguineous suffusions. The lumbar enlargement in its upper portion was the seat of a large area of myelitic softening; some of the pial vessels were the seat of thrombosis, and a fibrino-purulent exudation was present upon a portion of the posterior aspect. On bacteriological examination bacteria coli communes and streptococci were found upon the pia mater at the level of the focus of myelitis.

A FATAL CASE OF MULTIPLE NEURITIS.

At a recent meeting of the Clinical Society of London, CHURTON (*Medical Press and Circular*, No. 2895, p. 454) reported the case of a rather fragile girl, fourteen years old, who, two years before coming under observation, had choreic twitching of the eyes, supposed to be due to imitation of a school-friend. Some eight months later the shoulders and head also became affected slightly. Five or six weeks after this the girl went to a school-party and became excited and tired, and afterward walked two miles, and was quite exhausted. On the following day she still felt tired, and complained of a sensation of "pins and needles" in the fingers, and was unable to play the piano. On the next day she staggered in walking, and on the following day was in bed and complaining of pains in the calves of the legs. The temperature was now found to be 103°, and the paralysis advanced; gradually use of the arms, legs, and trunk was lost, and the reflexes were abolished. Attacks of rapid breathing occurred, and the heart's action was also rapid. Sensibility was preserved, and there was no œdema. Death took place six days after the onset of the acute symptoms. Analysis of the drinking-water used showed the presence of considerable quantities of lead, and especially in that from the hot-water pipe. It was further learned that the child had been in the habit of taking tea made with water from the latter. The fatal illness was ascribed to multiple neuritis due to chronic lead-poisoning.

SUDDEN DEATH FROM INTESTINAL HEMORRHAGE DUE TO TUBERCULOSIS.

BOUNAIX (*Archives de Médecine et de Pharmacie Militaires*, 1894, No. 11, p. 399) has reported the case of a soldier who presented constipation, pallor, headache, and nausea, without elevation of temperature or pulmonary complication. While under observation a large amount of blood was passed by the bowel, and the general condition became distinctly aggravated. Cerebral symptoms, agitation, syncope, and delirium appeared, and led to a fatal termination. Upon post-mortem examination a succession of hemorrhagic areas were found, extending from the lower portion of the ileum throughout the entire length of the large intestine. These foci were especially numerous in the region of the ileo-cæcal valve, where in places the mucous membrane was ulcerated; in other places were cicatrices. The mesentery was thickened; the mesenteric glands and those of the meso-colon were tuberculous.

SURGERY.

UNDER THE CHARGE OF

J. WILLIAM WHITE, M.D.,
PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE UNIVERSITY AND GERMAN HOSPITALS;

ASSISTED BY

ALFRED C. WOOD, M.D., AND C. L. LEONARD, M.D.,
INSTRUCTOR IN CLINICAL SURGERY, UNIVERSITY OF PENNSYLVANIA; ASSISTANT SURGEON, UNIVERSITY HOSPITAL.
ASSISTANT INSTRUCTOR IN CLINICAL SURGERY IN THE UNIVERSITY OF PENNSYLVANIA.

TYPICAL FRACTURES OF THE RADIUS AND THEIR CAUSE.

BÄHR (*Centralbl. für Chir.*, 1894, No. 36) shows that the classical experiment of Lecomte, substantiating his claim that in these fractures the os scaphoid and pisiform do not come in contact with the ground is fallacious. This has been undisputed since 1860; but if, instead of marking the most prominent point of the volar side, which does not come in contact with the ground in these cases, but that portion which touches the paper when the arm is in extension and lies upon the flexor surface, is marked, we will find that when the arm is over-extended to the point where the hand is at a right angle, this point comes directly in contact and would naturally receive the force of the blow. Lecomte's experiment as an explanation of the mechanism of the fractures is therefore worthless. The author concludes from his observations that the typical radius fracture is not so much the result of a bending (the impression of earlier writers) as of an over-stretching of volar ligaments. Pure fissured fractures from hyper-extension can only be breaks of the volar edge of the articulating surface, or must run in a direction from above on the volar side downward to the dorsal side. All other forms of fracture can be explained by the impact of the upper carpal row upon the lower end of the radius.

THE SUBCUTANEOUS EXTIRPATION OF THE TUBERCULAR LYMPHATICS OF THE NECK.

Under this title DOLLINGER (*Centralbl. für Chir.*, 1894, No. 36) recommends the following method: The hair is shaved from the lower portion of the back of the head, and the entire head and hair carefully cleansed. The incision lies in this shaven region, beginning on a level with the external auditory meatus, one centimetre from the edge of the hair, and is a curved incision about five centimetres in length, convex below, and extending to the middle line of the neck. The incision is carried through the fascia as well.

The operator then works his way with the finger and periosteal elevator beneath the skin till the first gland is reached; it is seized with a volsella and dissected free with the finger and elevator. The head should be turned to the affected side during the operation, and any gland attached to the jugular vein should be brought to the external wound and carefully removed.

TRAUMATIC EPILEPSY.

LE DENTU gives (*La Presse Médicale*, June 9, 1894) the following as the known causes of traumatic epilepsy:

1. Fragments of bone resulting from the fracture of the skull; these may cause epileptiform convulsions immediately after the trauma.
2. Bony outgrowths due to traumatism of the cranium may cause epilepsy. This is, however, a rare event, as when a slow compression occurs the brain accommodates itself to the new conditions.
3. Meningeal cicatrices, following lacerations of the membranes by bony fragments. They are at first soft, but later are apt to become hard and adhere to the surface of the brain, when they are capable of determining epileptiform attacks.
4. It is the same with incipient chronic meningitis, which ends in sclerosis of the membranes.
5. Cysts resulting from intracranial hemorrhages occurring at the point of the fracture may cause attacks of epilepsy.
6. Arterio-venous aneurism. A case of this kind has been described by Warnots, of Brussels. He diagnosticated a blood cyst in a case of epilepsy which had been preceded by traumatism, and on opening the skull found the above lesion. The bone was not replaced, but the scalp was sutured. The patient was cured.

In operating for traumatic epilepsy it is not sufficient to remove a disk of bone; but if no lesion is found, the dura should be incised to permit of inspection of the subjacent parts, and even incision of the cortex of the brain may be practised, although the latter is generally followed by more or less lasting paralysis.

ON THE MODE OF DEATH IN CEREBRAL COMPRESSION, AND ITS PREVENTION.

VICTOR HORSLEY calls renewed attention in the *Quarterly Medical Journal*, 1894, vol. ii., part iv., to the fact that in fatal cases of cerebral compression death is due to respiratory failure. This has been experimentally demonstrated by a number of investigators, among the most recent of whom are Spencer and the author. Their results led them to the general conclusion that a rise of pressure within the skull caused a slowing and diminution of the respiratory movements, and later arrest of the same.

The three common causes of increased intra-cranial tension which have been submitted to surgical treatment are cerebral tumors, hemorrhage, and inflammatory foci. In each of these sudden death is apt to occur from arrest of respiration, unless the pressure be relieved by trephining.

Four cases of intra-cranial tumor—three of the cerebrum and one of the cerebellum—are cited in illustration of the subject. In one of these death resulted from respiratory failure on the morning of the day appointed for the operation. In the other three cases the failure of respiration occurred on the table during the operation for the relief of the cerebral condition. In each instance the patient turned suddenly white, the respiration became extremely shallow for a few breaths, and then stopped altogether. Artificial respiration was at once resorted to, and the skull rapidly and adequately opened over the supposed site of the tumor with the trephine and bone forceps. In every instance normal respiration returned, the movements being a little shallow at first, but soon assuming their customary proportions.

In experimenting on monkeys Horsley found that hot irrigations (100° to 105° F.) were very beneficial in removing the shock of the operative procedure and in restoring the activity of the respiratory centre. He therefore has an assistant irrigate the head freely with bichloride of mercury—about 1 : 10,000 —at the temperature mentioned during these operations. In this connection he expresses doubt whether the routine treatment of applying an ice bag in head injuries ought not to be given up.

Attention is directed to the class of cases in which a person receiving a blow on the occipito-temporal region falls unconscious and dies, or, as is said, falls dead. Death results in these cases, according to Horsley, from respiratory arrest, and they are eminently cases requiring artificial respiration, although this seems to have been entirely ignored heretofore.

In concluding the author states that of all of the lower nerve centres which are necessary to the functions of so-called organic life, the respiratory centre is the most sensitive to mechanical pressure and shocks; that where death results in cases of intra-cranial pressure, artificial respiration should be immediately performed, and the skull opened freely at once; that in cases of sudden shock artificial respiration should be directly instituted, and that in every case heat should be applied to the head—preferably by irrigation.

ON RESECTION OF THE CARDIA.

Under this heading **LEVY** describes in the *Centralblatt für Chirurgie*, 1894, No. 31, an operation which he has devised for removing the œsophageal extremity of the stomach. Resection of the pylorus has now become a not uncommon operation, and the author has sought to confer the same benefits on those patients suffering from malignant disease of the cardiac extremity as are offered those in which the disease is located in the pylorus. So far, the operation has been performed on cadavers and dogs only. An exhaustive communication is promised later; the object of the present writing is briefly to outline his method, which is as follows:

1. Incision through the abdominal wall, beginning in the middle line at the ensiform cartilage and extending to a finger's breadth below the navel, which is passed on its left side, and from this extremity of the wound a second incision is carried at a right angle through the right rectus muscle.

2. Isolation of the cardia. The wound is held open by retractors, the liver pushed to the right and above, and the stomach drawn downward and to the left. The small curvature and the lesser omentum then become visible. The latter is then cut through on the left side (the portion adjacent to the cardia), and double ligatures applied to the arteria and vena coronaria